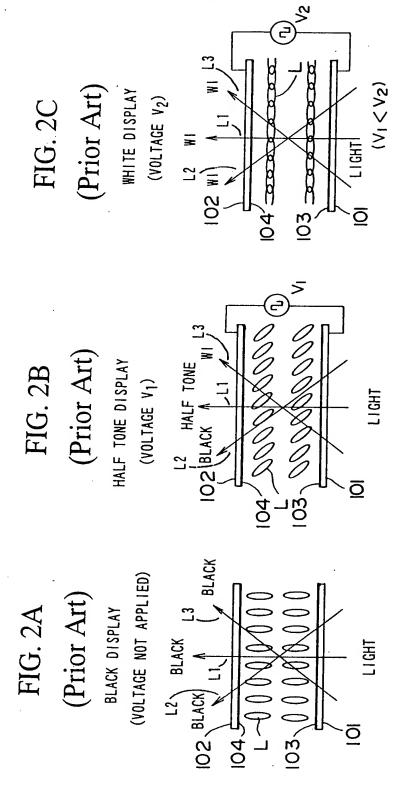
LIGHT (V1<V2) (Prior Art) FIG. 1C BLACK DISPLAY (VOLTAGE V2) (Prior Art)
HALF TONE DISPLAY FIG. 1B (VOLTAGE V<sub>1</sub>) 103 <u>104</u> (VOLTAGE NOT APPLIED) FIG. 1A (Prior Art) WHITE DISPLAY 드 103 0.4

ì.



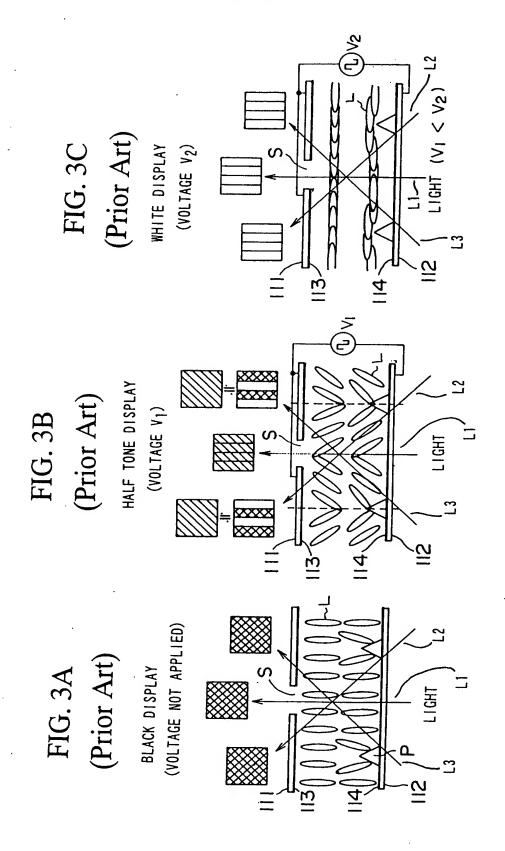


FIG. 4A (Prior Art) Sı Sı 111 112 Sz S2 FIG. 4B (Prior Art) P2 112 FIG. 4C (Prior Art) 114

## FIG. 5 (Prior Art)

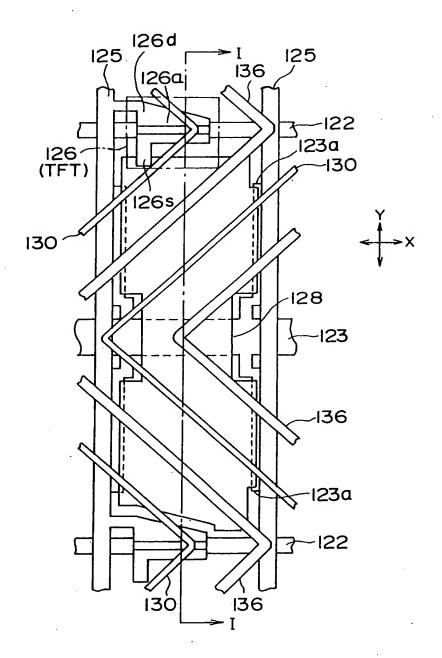


FIG. 6 (Prior Art)

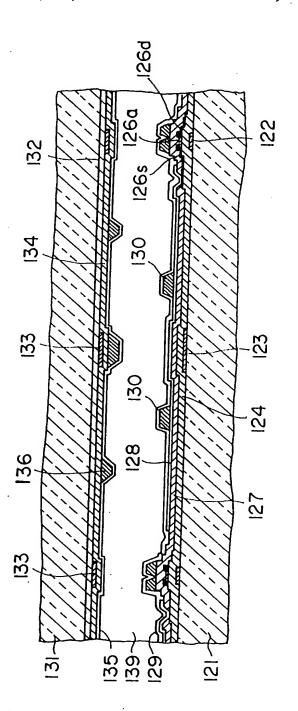


FIG. 7 (Prior Art)

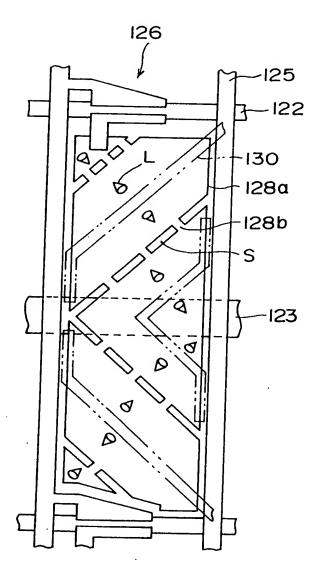
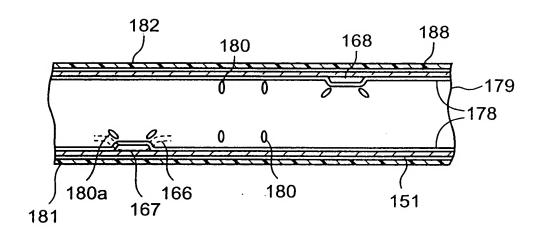
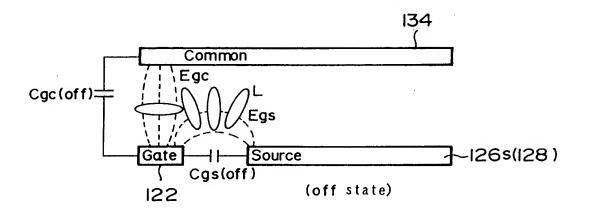


FIG. 8 (Prior Art)

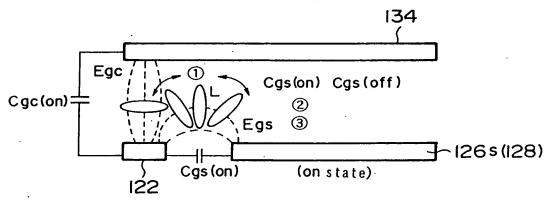


### FIG. 9A (Prior Art)



### FIG. 9B (Prior Art)

① A tilt angle of a liquid crystal molecule is changed in response to a voltage.



- ② A capacitance is changed by the tone.
- A capacitance is also changed by light irradiation.

FIG. 10A (Prior Art)

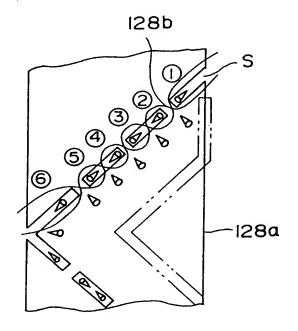
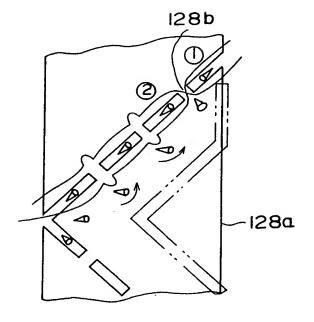


FIG. 10B (Prior Art)



Crain, Ltd. (Patrick Burns) f. No. 1508.69867 (312) 360 0080

FIG. 11 (Prior Art)

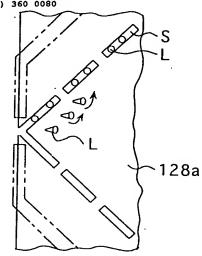
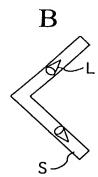


FIG. 12

(Prior Art)

A



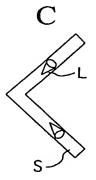
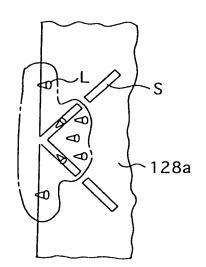


FIG. 13 (Prior Art)



# FIG. 14A (Prior Art)

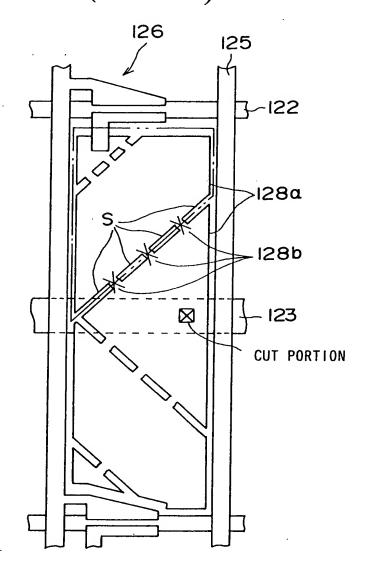


FIG. 14B

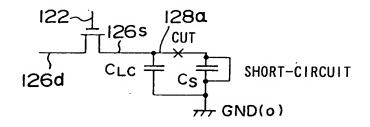
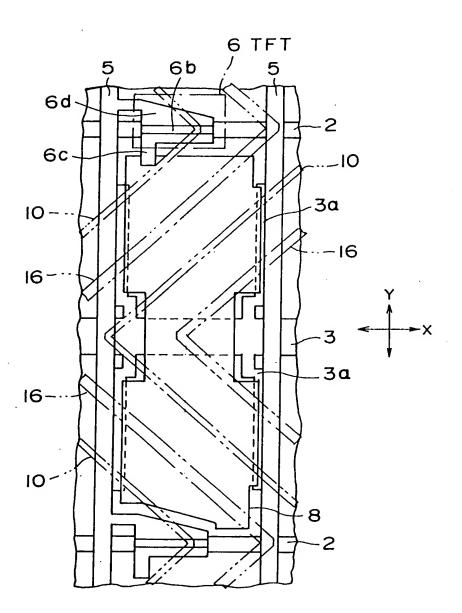


FIG. 15



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Greer, Burns & Crain, Ltd. (Patrick Burns)

Ref. No. 1508.69867

(312) 360 0080

FIG. 16

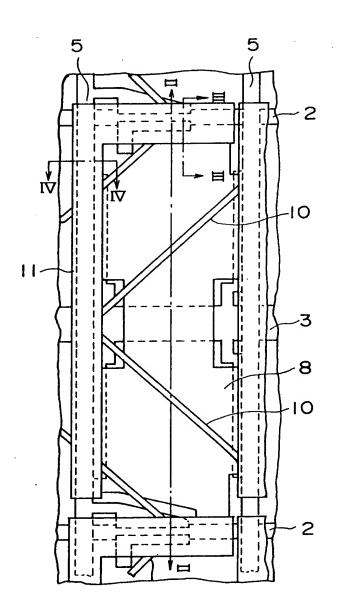
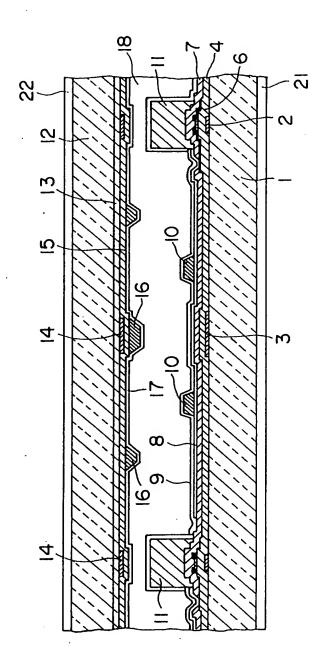


FIG. 17



### FIG. 18

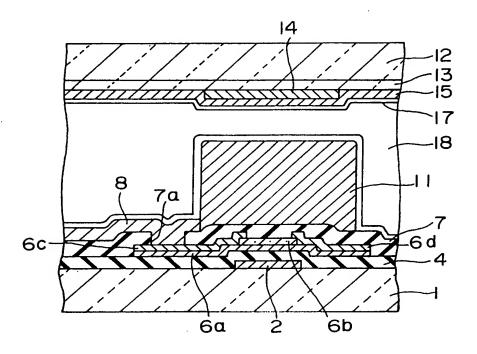
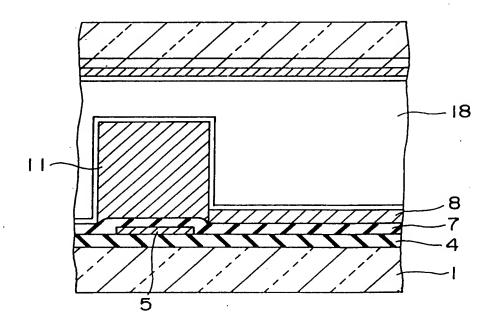
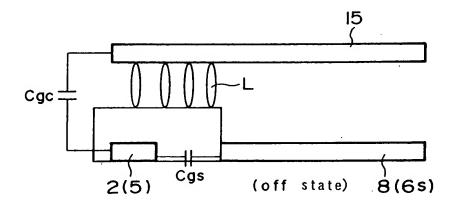


FIG. 19



### FIG. 20A



#### FIG. 20B

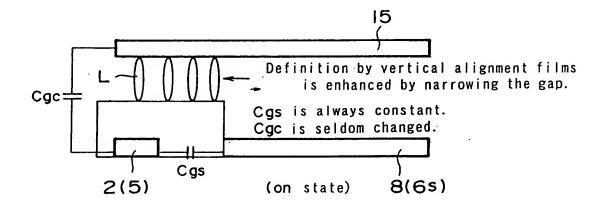


FIG. 21

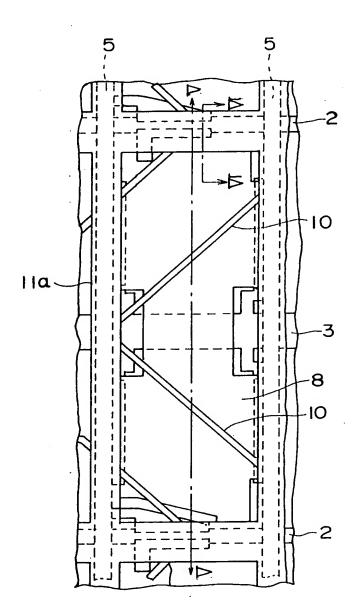


FIG. 22

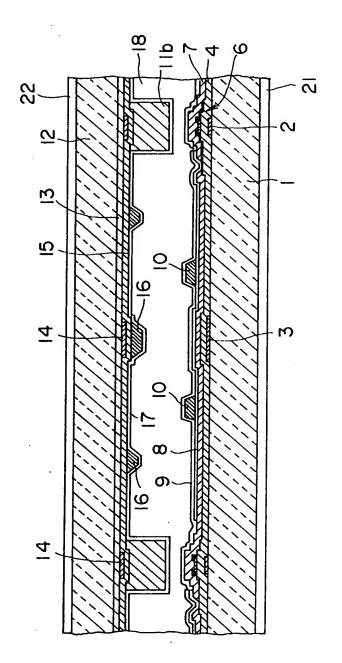


FIG. 23

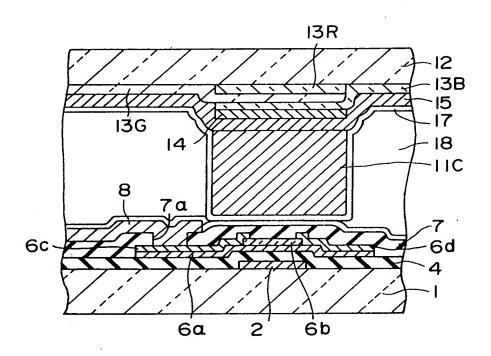


FIG. 24

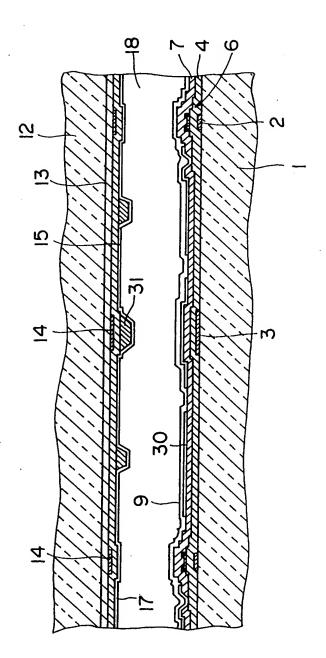
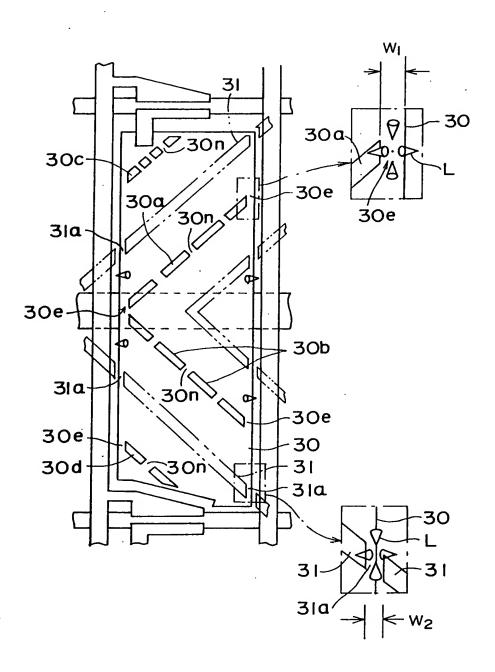
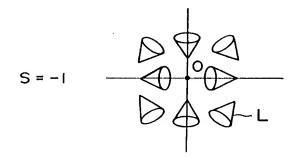


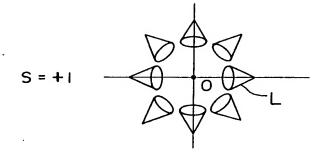
FIG. 25



### FIG. 26A



### FIG. 26B



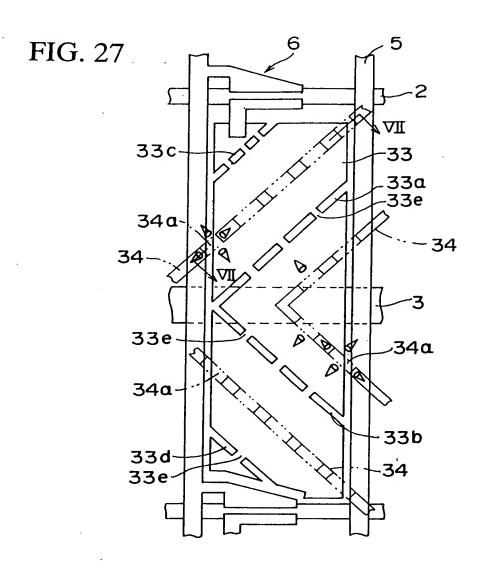


FIG. 28

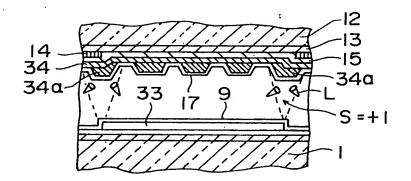


FIG. 29

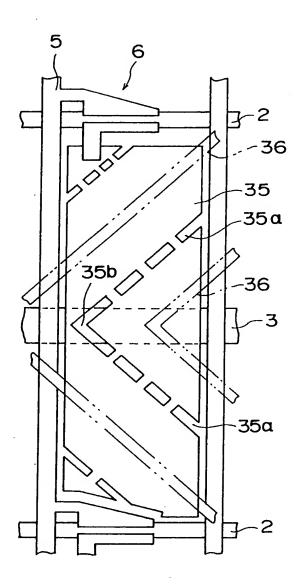


FIG. 30

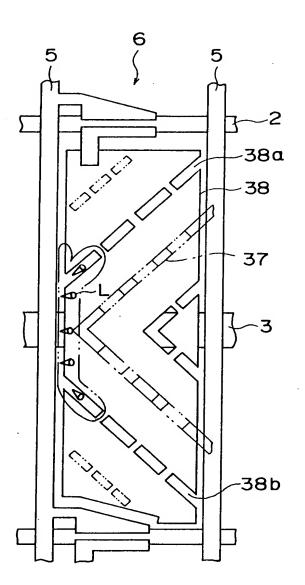


FIG. 31A

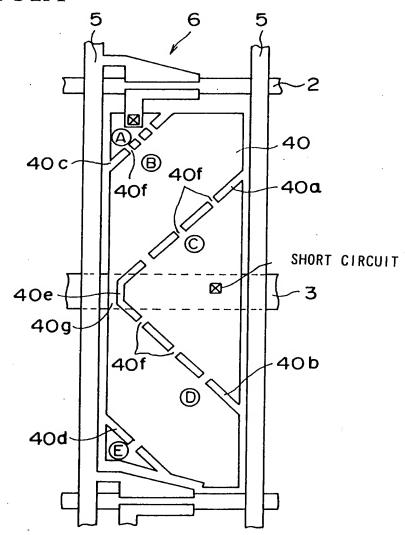


FIG. 31B 40f

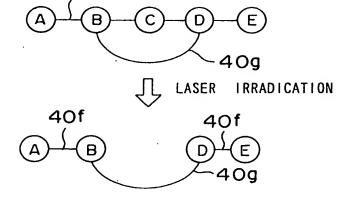


FIG. 32A

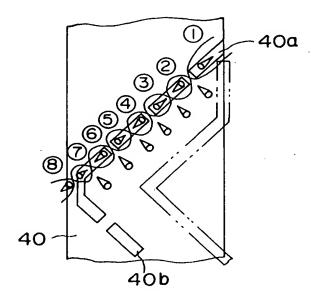


FIG. 32B

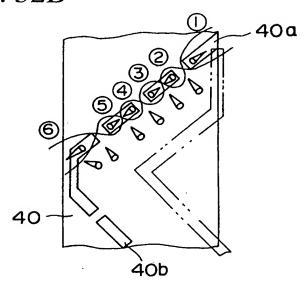


FIG. 33

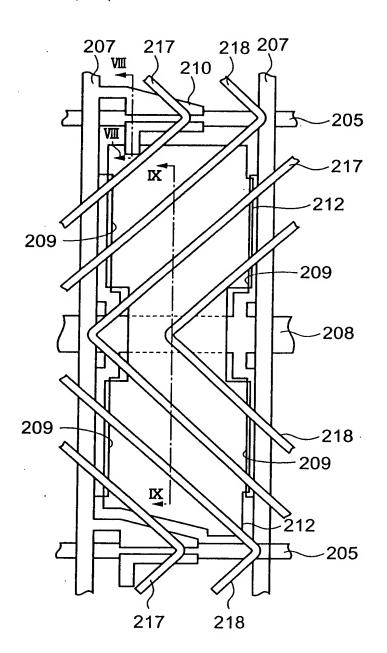
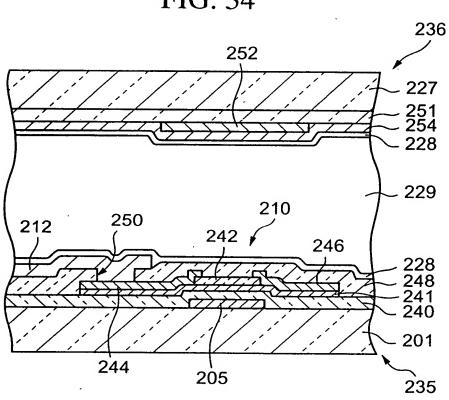
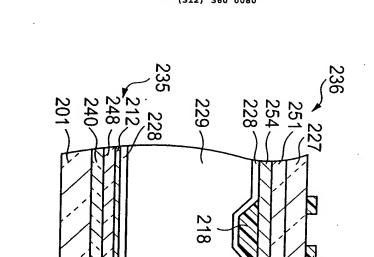


FIG. 34





218

221

208

IG. 35

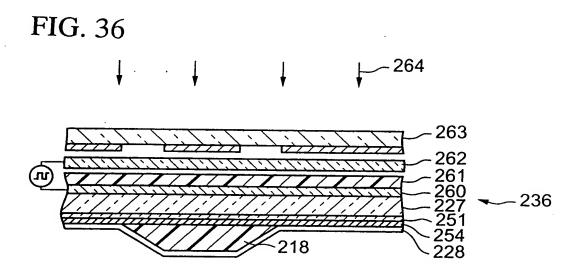


FIG. 37

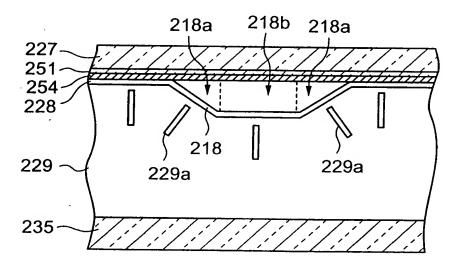


FIG. 38

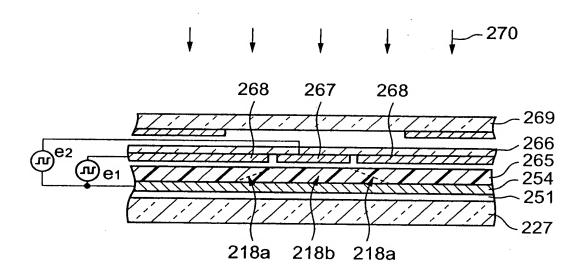


FIG. 39A

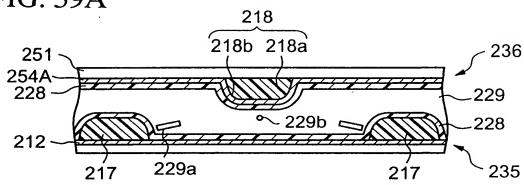


FIG. 39B

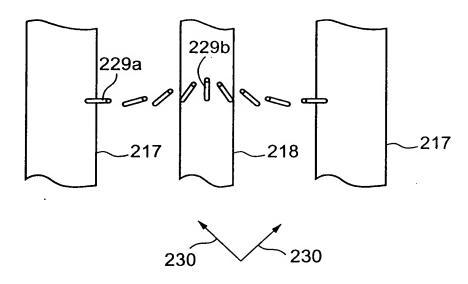


FIG. 40

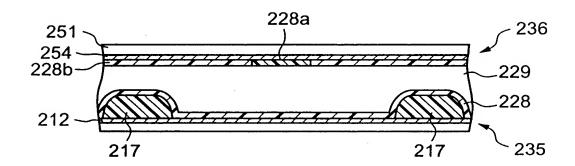
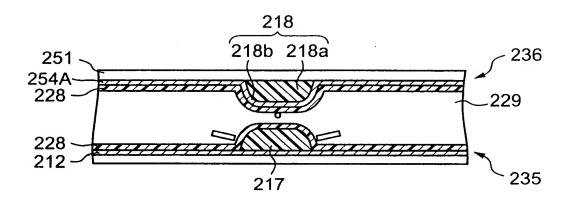


FIG. 41A



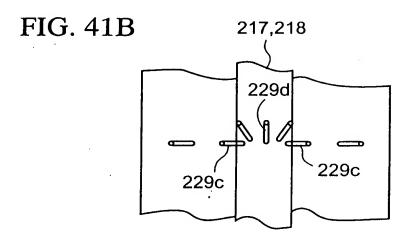


FIG. 42

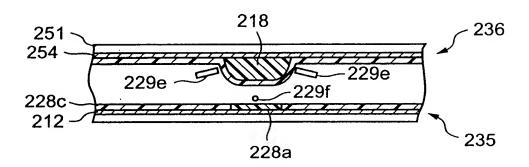


FIG. 43

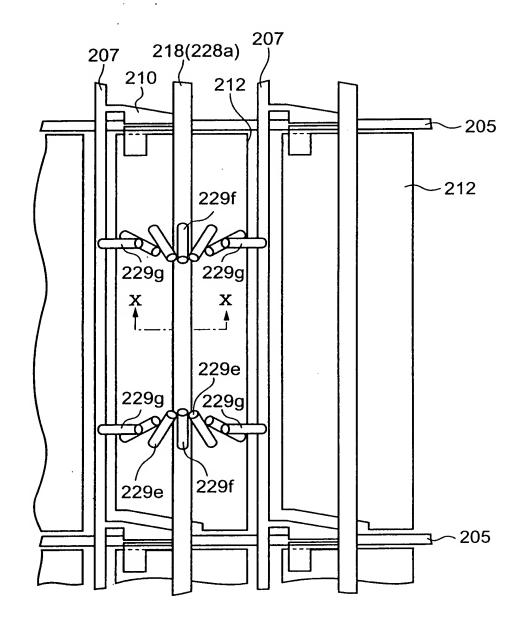


FIG. 44

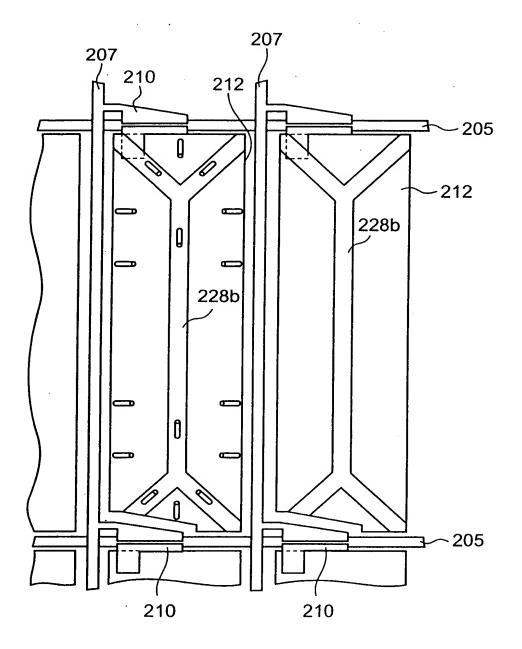


FIG. 45A

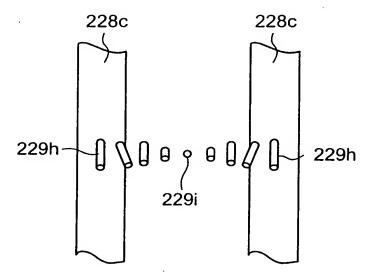


FIG. 45B

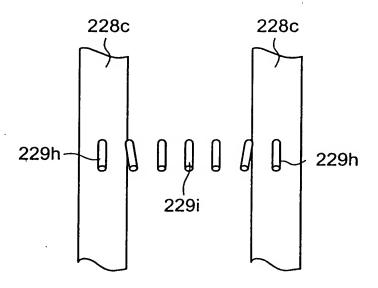


FIG. 46

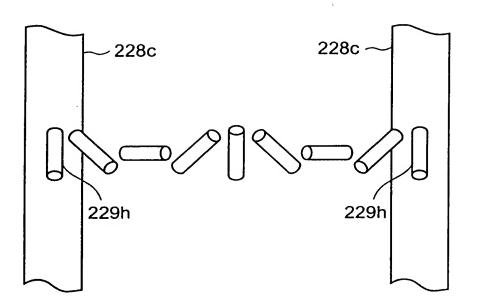
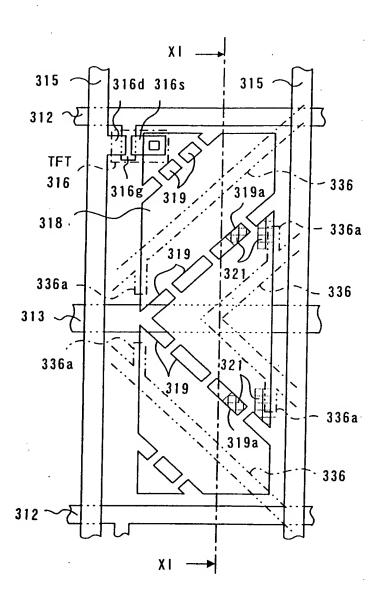


FIG. 47





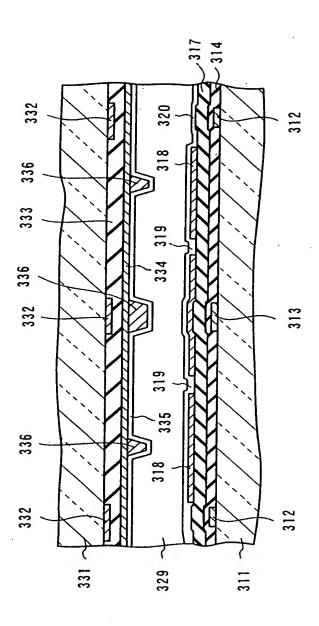


FIG. 49

## ALIGNMENT OF LIQUID CRYSTAL MOLECULES (NO POSITIONAL DISPLACEMENT)

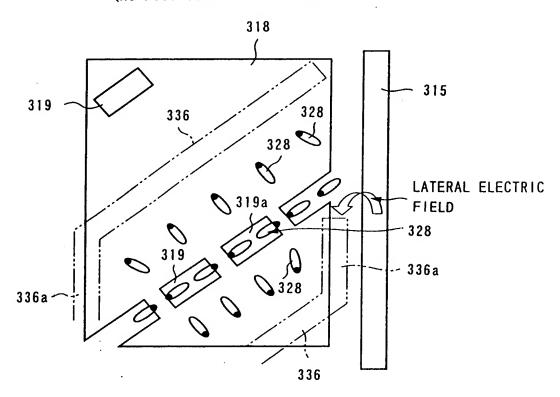


FIG. 50

## ALIGNMENT OF LIQUID CRYSTAL MOLECULES (POSITIONAL DISPLACEMENT)

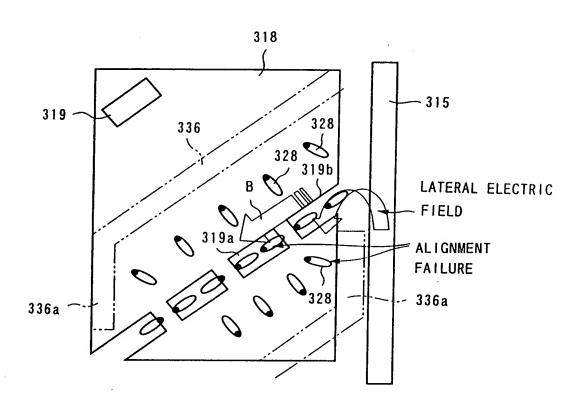


FIG. 51

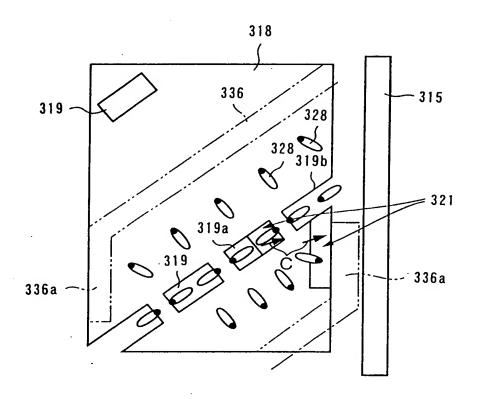


FIG. 52

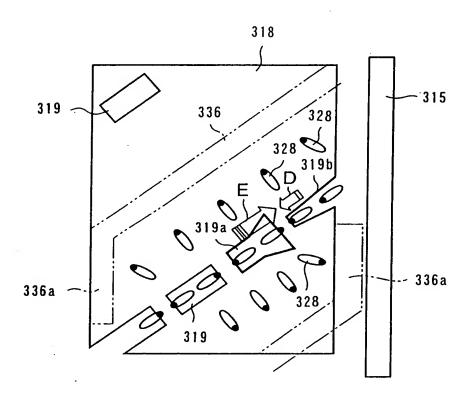


FIG. 53

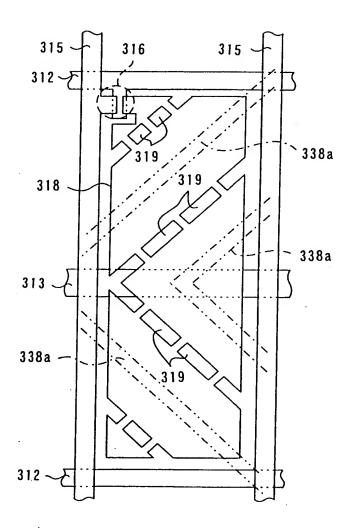


FIG. 54

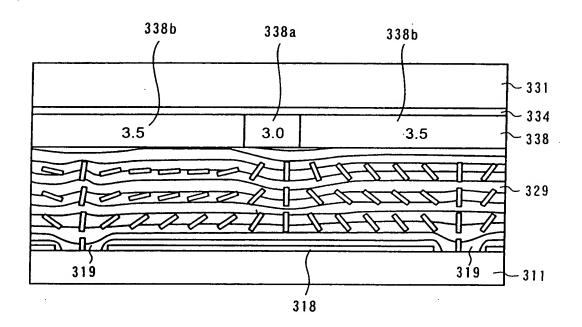
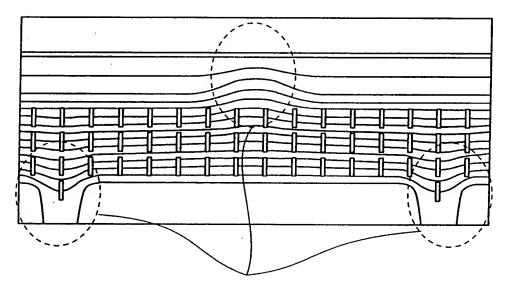
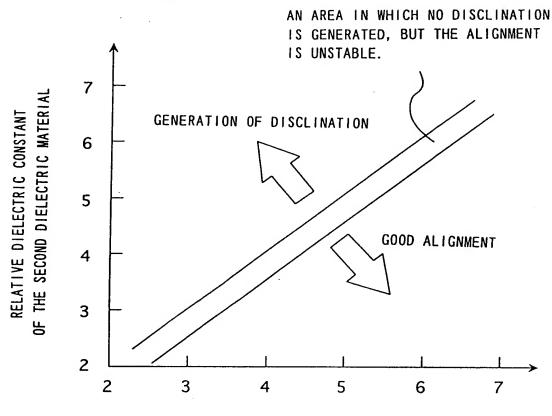


FIG. 55



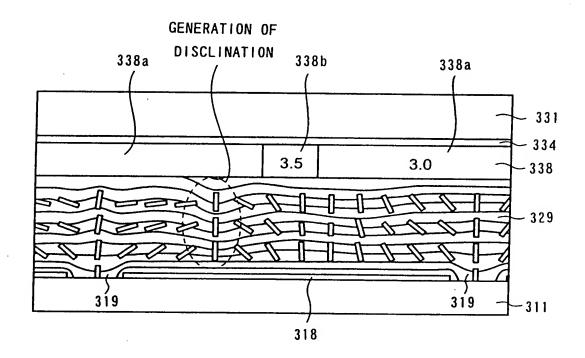
The equipotential lines are pushed out outwardly from the liquid crystal layers.

FIG. 56



RELATIVE DIELECTRIC CONSTANT
OF THE FIRST DIELECTRIC MATERIAL

FIG. 57



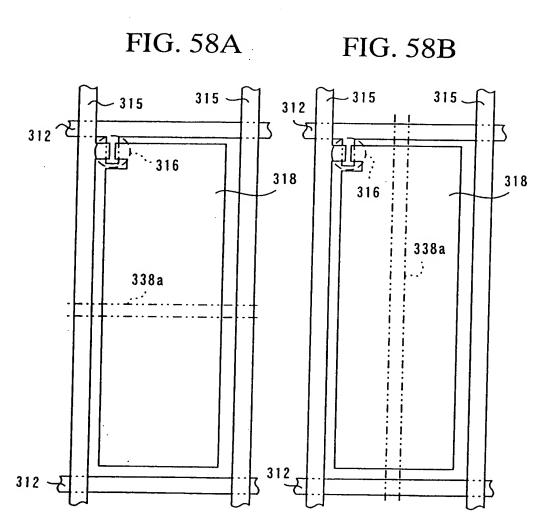


FIG. 59

